



00672511.TXT  
SEQUENCE LISTING

<110> Efthymios Ippikoglou  
<120> METHOD OF PRODUCING RECOMBINANT DNA MOLECULES  
<130> 02901/0203760-USO  
<140> 10/561,743  
<141> 2005-12-20  
<150> PCT/EP2004/006600  
<151> 2004-06-18  
<150> 60/480,581  
<151> 2003-06-20  
<150> 60/493,586  
<151> 2003-08-07  
<160> 31  
<170> PatentIn version 3.1

<210> 1  
<211> 1909  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)..(1909)  
<223> cDNA sequence for human b-FSH

<400> 1  
acagctcttg ccaggcaagg cagccgacca cagaccagga tgaagacact ccagtttttc 60  
ttccttttct gttgctggaa agcaatctgc tgcaatagct gtgagctgac caacatcacc 120  
attgcaatag agaaagaaga atgtcgtttc tgcataagca tcaacaccac ttggtgtgct 180  
ggctactgct acaccagga tctggtgtat aaggaccag ccaggcccaa aatccagaaa 240  
acatgtacct tcaaggaact ggtatatgaa acagtgaag tgcccggctg tgctcaccat 300  
gcagattcct tgtatacata ccagtgaggc acccagtgtc actgtggcaa gtgtgacagc 360  
gacagcactg attgtactgt gcgaggcctg gggcccagct actgctcctt tggtgaaatg 420  
aaagaataaa gatcagtga catttcaggc cacataacct tgtcctgaag gaccaagata 480  
ttcaaaaagt ctgtgtgtgt gcaatgtgcc caggggacaa accactggat caggggatcc 540  
agactctact gatccctggt ctactggcag aggggaactct ggggaattgag agtgctgggg 600  
gccaggactc catcatgatt cagctctata ttcttaggtc tgatttcata aggtttattc 660  
agtcttaact cacagacttg tgcctggttt cttctttaaa aatcttagaa atcttctcag 720  
gcaatgcctc tctcttaggg ggaaacataa gcctagaagg aggaagcagt aatgggagtg 780  
agtgaagaa ctaactgcag cagtcttctg gtagactctt gggccctcta gagcaaggtc 840

## 00672511.TXT

```

agcatcttca gcattgtagc gtcaatgcct agcactctgc ctggaactta gaaacacaac 900
aatggcttct ttagatcaga aagggtcaagg gtagaaaata ctggaagagg atgtttgagg 960
taagctgatg aggctgcccg cagcacacca gtcccatgaa agttagtggc atcagtttca 1020
cctcgccctt tctccagcac atgagtattg agacatgatg tgtctttctg aattgtttgg 1080
tacagatggg gagtaacaga gctcgaagat ttccaagcta ttactaccaa gcctgttagt 1140
taagggcaaa ggcaagaaat tgtaatttgg ggctgtggaa attagcctgc ctctattcat 1200
tacttaaaaca aattgatcac atgctactag gctcctgcaa actccttttt gagataaagg 1260
gaaaaaacca aactatctca ccctaccctc cctaggatcc acttcttttg aatgacaaag 1320
gatttgaaag taggtttgaa agcagtttca gcaatttaat aaatataatt aatttgtcta 1380
ccaaatatat ttgtataaat aatagctcct ttagaaagaa ttagccatgg ggggatcgag 1440
gggaaactgc tgttttctag gatcctgtct acatcaatct tctattttat ccatccatgt 1500
tctcccaaat ctgtgctttc tttcaacagg ttatatatta aaactatttc atgagttgat 1560
ttcttttaaa cgtgttaact gtcttagtta tgcactcagt ttcacactca tattgtttaa 1620
ctaatttatt taaagtctta tttttttaat aaagatgcta gccaccagag tcacggcttg 1680
gattgtttta tgtacaaaca gatgacttag aaattctgta ttttataata atattagtgg 1740

aatgaaatct taaaatataa ttcccagtgt ttctataaat attacctttc cttatctttg 1800
gagatattaa aaataatttt gttggatttc tgaagtgttt tgtcacttaa atttcctgtc 1860
atTTTTtgaa gacattttct gatgtaattt gggagaaaaa aagcataga 1909

```

```

<210> 2
<211> 54
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)..(5)
<223>  $\beta$ -FSH signal sequence

```

```

<400> 2
atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgc 54

```

```

<210> 3
<211> 159
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> exon
<222> (1)..(159)
<223> exon #1 of human  $\beta$ -FSH (NM_000510)

```

## 00672511.TXT

<400> 3  
 atg aag aca ctc cag ttt ttc ttc ctt ttc tgt tgc tgg aaa gca atc 48  
 Met Lys Thr Leu Gln Phe Phe Phe Leu Phe Cys Cys Trp Lys Ala Ile  
 1 5 10 15

tgc tgc aat agc tgt gag ctg acc aac atc acc att gca ata gag aaa 96  
 Cys Cys Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys  
 20 25 30

gaa gaa tgt cgt ttc tgc ata agc atc aac acc act tgg tgt gct ggc 144  
 Glu Glu Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly  
 35 40 45

tac tgc tac acc agg 159  
 Tyr Cys Tyr Thr Arg  
 50

<210> 4  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> exon  
 <222> (1)..(231)  
 <223> exon #2 of human  $\beta$ -FSH (NM\_000510)

<400> 4  
 gat ctg gtg tat aag gac cca gcc agg ccc aaa atc cag aaa aca tgt 48  
 Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln Lys Thr Cys  
 1 5 10 15

acc ttc aag gaa ctg gta tat gaa aca gtg aga gtg ccc ggc tgt gct 96  
 Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro Gly Cys Ala  
 20 25 30

cac cat gca gat tcc ttg tat aca tac cca gtg gcc acc cag tgt cac 144  
 His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr Gln Cys His  
 35 40 45

tgt ggc aag tgt gac agc gac agc act gat tgt act gtg cga ggc ctg 192  
 Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val Arg Gly Leu  
 50 55 60

ggg ccc agc tac tgc tcc ttt ggt gaa atg aaa gaa taa 231  
 Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys Glu  
 65 70 75

<210> 5  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 5  
 Met Lys Thr Leu Gln Phe Phe Phe Leu Phe Cys Cys Trp Lys Ala Ile  
 1 5 10 15

Cys Cys Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys  
 20 25 30

Glu Glu Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly

35 40 45  
 Tyr Cys Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys  
 50 55 60  
 Ile Gln Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg  
 65 70 75 80  
 Val Pro Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val  
 85 90 95  
 Ala Thr Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys  
 100 105 110  
 Thr Val Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys  
 115 120 125  
 Glu

<210> 6  
 <211> 390  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223>  $\beta$ -FSH X1X2 PCR product

<300>  
 <308> GenBank / NM\_000510  
 <309> 2002-11-05  
 <313> (1)..(390)

<400> 6  
 atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgcaatagc 60  
 tgtgagctga ccaacatcac cattgcaata gagaaagaag aatgtcgttt ctgcataagc 120  
 atcaacacca cttgggtgtgc tggctactgc tacaccaggg atctgggtgta taaggaccca 180  
 gccaggccca aaatccagaa aacatgtacc ttcaaggaac tggatatatga aacagtgaga 240  
 gtgcccggct gtgctcacca tgcagattcc ttgtatacat acccagtggc caccagtgt 300  
 cactgtggca agtgtgacag cgacagcact gattgtactg tgcgaggcct ggggcccagc 360  
 tactgctcct ttggtgaaat gaaagaataa 390

<210> 7  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> primer PFX1 n.t. position 40-64 in SEQ ID NO: 1, cDNA sequence  
 for human  $\beta$ -FSH

<400> 7  
 atgaagacac tccagttttt cttcc

25

00672511.TXT

<210> 8  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer PRX1 n.t. position 198-178 in SEQ ID NO: 1, cDNA sequence  
 for human  $\beta$ -FSH  
  
 <400> 8  
 cctggtgtag cagtagccag c 21  
  
 <210> 9  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer PFX2 n.t. position 199-219 in SEQ ID NO: 1, cDNA sequence  
 for human  $\beta$ -FSH  
  
 <400> 9  
 gatctggtgt ataaggaccc a 21  
  
 <210> 10  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer PRX2 n.t. position 429-407 in SEQ ID NO: 1, cDNA sequence  
 for human  $\beta$ -FSH  
  
 <400> 10  
 ttattctttc atttcaccaa agg 23  
  
 <210> 11  
 <211> 42  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer PRX1-PFX2'  
  
 <400> 11  
 tgggtcctta tacaccagat ccctggtgta gcagtagcca ga 42  
  
 <210> 12  
 <211> 39  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer SDK-PFX1  
  
 <400> 12  
 tcgaaggaga tagaatgaag acactccagt ttttcttcc 39

## 00672511.TXT

<210> 13  
 <211> 180  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(180)  
 <223> X1UR product

<400> 13  
 atgaagacac tccagttttt cttccttttc tgttgctgga aagcaatctg ctgcaatagc 60  
 tgtgagctga ccaacatcac cattgcaata gagaaagaag aatgtcgttt ctgcataagc 120  
 atcaacacca cttggtgtgc tggctactgc tacaccaggg atctggtgta taaggaccca 180

<210> 14  
 <211> 704  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(704)  
 <223> alpha-FSH (NM\_000735) full length cDNA sequence

<400> 14  
 gcagttactg agaactcata agacgaagct aaaatccctc ttcggatcca cagtcaaccg 60  
 ccctgaacac atcctgcaaa aagcccagag aaaggagcgc catggattac tacagaaaat 120  
 atgcagctat ctttctggtc acattgtcgg tgtttctgca tgttctccat tccgctcctg 180  
 atgtgcagga ttgcccagaa tgcacgctac aggaaaaccc attcttctcc cagccgggtg 240  
 ccccaatact tcagtgcatt ggctgctgct tctctagagc atatccact ccactaagggt 300  
 ccaagaagac gatgtttggtc caaaagaacg tcacctcaga gtccacttgc tgtgtagcta 360  
 aatcatataa cagggtcaca gtaatggggg gtttcaaagt ggagaaccac acggcgtgcc 420  
 actgcagtac ttgttattat cacaaatctt aaatgtttta ccaagtgtctg tcttgatgac 480  
 tgctgatttt ctggaatgga aaattaagtt gtttagtggt tatggctttg tgagataaaa 540  
 ctctcctttt ccttaccata ccactttgac acgcttcaag gatatactgc agctttactg 600  
 ccttcctcct tctctacag tacaatcagc agtctagttc ttttcatttg gaatgaatac 660  
 agcattaagc ttgttccact gcaaataaag ccttttaaat catc 704

<210> 15  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer HCG-SENT

<400> 15  
atggattact acagaaaata tgcagctatc 30

<210> 16  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer HCG-ANTISENT

<400> 16  
ttaagatttg tgataataac aagtactgca 30

<210> 17  
<211> 351  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> glycalA - RT-PCR product

<400> 17  
atggattact acagaaaata tgcagctatc tttctggtca cattgtcggg gtttctgcat 60  
gtttctccatt ccgctcctga tgtgcaggat tgcccagaat gcacgctaca ggaaaaccca 120  
ttctttctccc agccgggtgc cccaatactt cagtgcattgg gctgctgctt ctctagagca 180  
tatcccactc cactaagggtc caagaagacg atgttggtcc aaaagaacgt cacctcagag 240  
tccacttgct gtgtagctaa atcatataac aggggtcacag taatggggggg tttcaaagtg 300  
gagaaccaca cggcgtgccca ctgcagtact tgttattatc acaaattctta a 351

<210> 18  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer HCG-SENTCACC

<400> 18  
caccatggat tactacagaa aatatgcagc tatc 34

<210> 19  
<211> 355  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR product CACCglycalA

<400> 19  
caccatggat tactacagaa aatatgcagc tatcttttctg gtcacattgt cgggtgtttct 60  
gcatgttctc cattccgctc ctgatgtgca ggattgccca gaatgcacgc tacaggaaaa 120

## 00672511.TXT

cccattcttc tcccagccgg gtgcccgaat acttcagtgc atgggctgct gcttctctag 180  
 agcatatccc actccactaa ggtccaagaa gacgatgttg gtccaaaaga acgtcacctc 240  
 agagtccact tgctgtgtag ctaaatcata taacagggtc acagtaatgg ggggtttcaa 300  
 agtggagaac cacacggcgt gccactgcag tacttgttat taccacaaat cttaa 355

<210> 20  
 <211> 684  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR product AB-FSH

<400> 20  
 atggattact acagaaaata tgcagctatc tttctggtca cattgtcggg gtttctgcat 60  
 gtttctccatt ccgctcctga tgtgcaggat tgcccagaat gcacgtaca ggaaaaccca 120  
 ttcttctccc agccgggtgc cccaatactt cagtgcattg gctgctgctt ctctagagca 180  
 tatcccactc cactaagggt caagaagacg atgttggtcc aaaagaacgt cacctcagag 240  
 tccacttgct gtgtagctaa atcatataac agggtcacag taatgggggg tttcaaagtg 300  
 gagaaccaca cggcgtgcca ctgcagtact tgttattatc acaaattctaa tagctgtgag 360  
 ctgaccaaca tcaccattgc aatagagaaa gaagaatgtc gtttctgcat aagcatcaac 420  
 accacttggt gtgctggcta ctgctacacc agggatctgg tgtataagga cccagccagg 480  
 cccaaaatcc agaaaacatg taccttcaag gaactggtat atgaaacagt gagagtgtcc 540  
 ggctgtgctc accatgcaga ttccttgat acatacccag tggccacca gtgtcactgt 600  
 ggcaagtgtg acagcgacag cactgattgt actgtgcgag gcctggggcc cagctactgc 660  
 tcctttggtg aaatgaaaga ataa 684

<210> 21  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR forward primer PFMX2

<400> 21  
 aatagctgtg agctgaccaa 20

<210> 22  
 <211> 336  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR product S-FSH-B



## 00672511.TXT

<400> 22  
aatagctgtg agctgaccaa catcaccatt gcaatagaga aagaagaatg tcgtttctgc 60  
ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120  
gaccagcca ggcccaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180  
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240  
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300  
cccagctact gtccttttgg tgaaatgaaa gaataa 336

<210> 23  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer HCG-ANTISENT/woTAA

<400> 23  
agatttgtga taataacaag tactgcagtg g 31

<210> 24  
<211> 348  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR product glycalwoTAA

<400> 24  
atggattact acagaaaata tgcagctatc tttctgggtca cattgtcggg gtttctgcat 60  
gttctccatt ccgctcctga tgtgcaggat tgcccagaat gcacgctaca ggaaaaccca 120  
ttcttctccc agccgggtgc cccaatactt cagtgcattg gctgctgctt ctctagagca 180  
tatcccactc cactaagggtc caagaagacg atgttggtcc aaaagaacgt cacctcagag 240  
tccacttgct gtgtagctaa atcatataac agggtcacag taatgggggg tttcaaagtg 300  
gagaaccaca cggcgtgcc ctgcagtact tgttattatc acaaattc 348

<210> 25  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> hybrid reverse primer ABLIGATION

<400> 25  
ttggtcagct cacagctatt agatttgtga taataacaag tactgcagtg g 51

<210> 26  
<211> 368  
<212> DNA

<213> Artificial Sequence

<220>

<223> PCR product glycalwoTAAUR

<400> 26

```

atggattact acagaaaata tgcagctatc tttctgggtca cattgtcggg gtttctgcat    60
gtttctccatt ccgctcctga tgtgcaggat tgcccagaat gcacgctaca ggaaaaccca    120
ttctttctccc agccgggtgc cccaatactt cagtgcattgg gctgctgctt ctctagagca    180
tatcccactc cactaagggtc caagaagacg atgttggtcc aaaagaacgt cacctcagag    240
tccacttgct gtgtagctaa atcatataac agggtcacag taatggggggg tttcaaagtg    300
gagaaccaca cggcgtgccca ctgcagtact tgttattatc acaaatctaa tagctgtgag    360
ctgaccaa                                         368

```

<210> 27

<211> 227

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide AB-FSH

<400> 27

```

Met Asp Tyr Tyr Arg Lys Tyr Ala Ala Ile Phe Leu Val Thr Leu Ser
1      5      10     15
Val Phe Leu His Val Leu His Ser Ala Pro Asp Val Gln Asp Cys Pro
20     25     30
Glu Cys Thr Leu Gln Glu Asn Pro Phe Phe Ser Gln Pro Gly Ala Pro
35     40     45
Ile Leu Gln Cys Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro
50     55     60
Leu Arg Ser Lys Lys Thr Met Leu Val Gln Lys Asn Val Thr Ser Glu
65     70     75     80
Ser Thr Cys Cys Val Ala Lys Ser Tyr Asn Arg Val Thr Val Met Gly
85     90     95
Gly Phe Lys Val Glu Asn His Thr Ala Cys His Cys Ser Thr Cys Tyr
100    105    110
Tyr His Lys Ser Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile
115    120    125
Glu Lys Glu Glu Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys
130    135    140
Ala Gly Tyr Cys Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg
145    150    155    160
Pro Lys Ile Gln Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr
165    170    175

```

## 00672511.TXT

Val Arg Val Pro Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr  
 180 185 190  
 Pro Val Ala Thr Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr  
 195 200 205  
 Asp Cys Thr Val Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu  
 210 215 220  
 Met Lys Glu  
 225

<210> 28  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(561)  
 <223> cDNA sequence of INF-beta without stop codon

<400> 28  
 atgaccaaca agtgtctcct ccaaattgct ctctgttgt gcttctccac tacagctctt 60  
 tccatgagct acaacttgct tggattccta caaagaagca gcaattttca gtgtcagaag 120  
 ctctgtggc aattgaatgg gaggcttgaa tactgcctca aggacaggat gaactttgac 180  
 atccctgagg agattaagca gctgcagcag ttccagaagg aggacgccgc attgaccatc 240  
 tatgagatgc tccagaacat ctttgctatt ttcagacaag attcatctag cactggctgg 300  
 aatgagacta ttgttgagaa cctcctggct aatgtctatc atcagataaa ccatctgaag 360  
 acagtcctgg aagaaaaact ggagaaagaa gatttcacca ggggaaaact catgagcagt 420  
 ctgcacctga aaagatatta tgggaggatt ctgcattacc tgaaggccaa ggagtacagt 480  
 cactgtgcct ggaccatagt cagagtggaa atcctaagga acttttactt cattaacaga 540  
 cttacaggtt acctccgaaa c 561

<210> 29  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(513)  
 <223> INF-alpha-2B sequence with enterokinase site

<400> 29  
 gacgacgacg acaagtgtga tctgcctcaa acccacagcc tgggtagcag gaggaccttg 60  
 atgctcctgg cacagatgag gagaatctct cttttctcct gcttgaagga cagacatgac 120  
 tttggatttc cccaggagga gtttggcaac cagttccaaa aggctgaaac catccctgtc 180

## 00672511.TXT

ctccatgaga	tgatccagca	gatcttcaat	ctcttcagca	caaaggactc	atctgctgct	240
tgggatgaga	ccctcctaga	caaattctac	actgaactct	accagcagct	gaatgacctg	300
gaagcctgtg	tgatacaggg	gggtgggggtg	acagagactc	ccctgatgaa	ggaggactcc	360
attctggctg	tgaggaaata	cttccaaaga	atcactctct	atctgaaaga	gaagaaatac	420
agcccttgctg	cctgggaggt	tgtcagagca	gaaatcatga	gatctttttc	tttgtcaaca	480
aacttgcaag	aaagttaaag	aagtaaggaa	tga			513

&lt;210&gt; 30

&lt;211&gt; 1074

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(1074)

&lt;223&gt; INF-beta/INF-alpha-2B sequence with enterokinase site

&lt;400&gt; 30

atgaccaaca	agtgtctcct	ccaaattgct	ctcctgttgt	gcttctccac	tacagctctt	60
tccatgagct	acaacttgct	tggattccta	caaagaagca	gcaattttca	gtgtcagaag	120
ctcctgtggc	aattgaatgg	gaggcttgaa	tactgcctca	aggacaggat	gaactttgac	180
atccctgagg	agattaagca	gctgcagcag	ttccagaagg	aggacgccgc	attgaccatc	240
tatgagatgc	tccagaacat	ctttgctatt	ttcagacaag	attcatctag	cactggctgg	300
aatgagacta	ttgttgagaa	cctcctggct	aatgtctatc	atcagataaa	ccatctgaag	360
acagtcctgg	aagaaaaact	ggagaaagaa	gatttcacca	ggggaaaact	catgagcagt	420
ctgcacctga	aaagatatta	tgggaggatt	ctgcattacc	tgaaggccaa	ggagtacagt	480
cactgtgcct	ggaccatagt	cagagtggaa	atcctaagga	acttttactt	cattaacaga	540
cttacagggt	acctccgaaa	cgacgacgac	gacaagtgtg	atctgcctca	aaccacagc	600
ctgggtagca	ggaggacctt	gatgctcctg	gcacagatga	ggagaatctc	tcttttctcc	660
tgcttgaagg	acagacatga	ctttggattt	ccccaggagg	agtttgga	ccagttccaa	720
aaggctgaaa	ccatccctgt	cctccatgag	atgatccagc	agatcttcaa	tctcttcagc	780
acaaaggact	catctgctgc	ttgggatgag	accctcctag	acaaattcta	cactgaactc	840
taccagcagc	tgaatgacct	ggaagcctgt	gtgatacagg	gggtgggggt	gacagagact	900
cccctgatga	aggaggactc	cattctggct	gtgaggaaat	acttccaaag	aatcactctc	960
tatctgaaag	agaagaaata	cagcccttgt	gcctgggagg	ttgtcagagc	agaaatcatg	1020
agatcttttt	ctttgtcaac	aaacttgcaa	gaaagtttaa	gaagtaagga	atga	1074

&lt;210&gt; 31

&lt;211&gt; 1059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(1059)

&lt;223&gt; INF-beta/INF-alpha-2B sequence without enterokinase site

&lt;400&gt; 31

atgaccaaca agtgtctcct ccaaattgct ctctgtttgt gcttctccac tacagctctt	60
tccatgagct acaacttgct tggattccta caaagaagca gcaattttca gtgtcagaag	120
ctcctgtggc aattgaatgg gaggcctgaa tactgcctca aggacaggat gaactttgac	180
atccctgagg agattaagca gctgcagcag ttccagaagg aggacgccgc attgaccatc	240
tatgagatgc tccagaacat ctttgctatt ttcagacaag attcatctag cactggctgg	300
aatgagacta ttgttgagaa cctcctggct aatgtctatc atcagataaa ccatctgaag	360
acagtcctgg aagaaaaact ggagaaaagaa gatttcacca ggggaaaact catgagcagt	420
ctgcacctga aaagatatta tgggaggatt ctgcattacc tgaaggccaa ggagtacagt	480
cactgtgcct ggaccatagt cagagtggaa atcctaagga acttttactt cattaacaga	540
cttacagggt acctccgaaa ctgtgatctg cctcaaacc acagcctggg tagcaggagg	600
accttgatgc tcctggcaca gatgaggaga atctctcttt tctcctgctt gaaggacaga	660
catgactttg gatttcccca ggaggagttt ggcaaccagt tccaaaaggc tgaaaccatc	720
cctgtcctcc atgagatgat ccagcagatc ttcaatctct tcagcacaaa ggactcatct	780
gctgcttggg atgagaccct cctagacaaa ttctacactg aactctacca gcagctgaat	840
gacctggaag cctgtgtgat acagggggtg ggggtgacag agactcccct gatgaaggag	900
gactccattc tggctgtgag gaaatacttc caaagaatca ctctctatct gaaagagaag	960
aaatacagcc cttgtgcctg ggaggttgtc agagcagaaa tcatgagatc tttttctttg	1020
tcaacaaact tgcaagaaag tttaagaagt aaggaatga	1059